

One Tiny Enemy

Because of a caution light, the CH-47 crew was forced to make an immediate precautionary landing in the northeast region of Afghanistan. The damage assessment and response team arrived on the scene and spent the entire night replacing the transmission while the five aircrew members assisted with security. Unfortunately, the crew neglected to protect themselves from one tiny enemy. By next morning, four of them were covered with insect bites on their arms, legs, faces and necks. A few weeks later, two of them would be battling malaria.

The CH-47 pilot was the first to come down with the early symptoms of the disease, which included abdominal pain, cycling fevers and severe fatigue. He later developed liver enzyme elevations and a drop in platelets and red and white blood cells. Several thick/thin blood smears initially proved inconclusive for malaria; however, following the arrival of a new test kit, the pilot tested positive for *Plasmodium falciparum*, the most lethal type of malaria.

The aviator was grounded and subsequently went through two cycles of Malarone, a malaria treatment, before antigen tests and thick/thin smears were negative for the disease. Following about three weeks of no-flight duty, the pilot returned to duty when his liver enzymes and blood cell indices normalized.

Shortly after the pilot began experiencing symptoms of malaria, a door gunner made three visits to a clinic over a five-day period for nearly passing out following the acute onset of a headache and fever. At each visit, the crewmember was found to be suffering from severe dehydration with an accompanying fast heartbeat and unstable blood pressure.

The door gunner's labs showed the same liver enzyme elevation and drops in critical blood cell lines as the pilot's, yet his initial thick/thin blood smears from his first two visits to the clinic were inconclusive or negative. However, the smears and antigen testing from the crewmember's third visit were positive for *falciparum*. The crewmember was grounded and responded well to one round of Malarone. He was returned to flight duty two weeks later, when his lab tests normalized and subsequent thin/thick blood smears were negative.

P. falciparum is one of three types of malaria and is endemic to the northeast region of Afghanistan—especially the region of the Jalalabad River Valley. It has an incubation period of nine to 30 days and can be lethal if unrecognized and untreated. Unlike our infantry comrades, who have the benefit of permethrine-treated uniforms, our aircrews must rely on their daily anti-malaria prophylaxis medicine (Doxycycline) and DEET. Although the door gunner was taking Doxycycline, the pilot was not because of a misunderstanding related to childhood allergy to a similar medicine. He now takes Doxycycline faithfully each day.

One lesson learned here, though, is our Air Warrior vests all contain DEET inside. None of these crewmembers were aware of that fact. I hope this story and lessons learned serve the broader aviation community in safe practices in vector disease prevention.